

## **REMARKS**

In the Official Action mailed on **4 September 2007**, the Examiner reviewed claims 1-36. The claims were objected to. Claims 1-8, 11-18, 20-28, and 31-36 were rejected under 35 U.S.C. § 102(e) based on Huitema (US Pub. No. 2004/0010683 hereinafter "Huitema").

### **Rejections under 35 U.S.C. §102(e)**

Independent claims 1, 11, 21, 31, 33, and 35 were rejected as being anticipated by Huitema. Applicant respectfully points out that the passages cited by the Examiner (Huitema, paragraphs [0023]-[0024], [0027], and [0033]) disclose including a digital fingerprint with a **single network address** that is part of a message. When a second device receives the message, the second device uses this digital fingerprint to verify the computing device that sent the message. Note that the use of a single network address as disclosed in Huitema suffers from the same drawback of having limited space available for the security value as is described on page 3, paragraph [0006] of the instant application in relation to prior authentication solutions.

In contrast, the present invention teaches **simultaneously encapsulating cryptographic data into multiple fields associated with different network layers of a protocol stack**, such as the transport layer and the data link layer of the OSI model. To accomplish this, the system of the present invention divides the cryptographic data into multiple pieces and simultaneously encapsulates each piece within a different field (see pages 7-8, paragraphs [0034]-[0035], page 9, paragraphs [0039]-[0043], and FIGs. 3 and 4 of the instant application). This enables the system to include security information that is larger than a single field within a packet. Applicant respectfully notes that splitting a cryptographic value across multiple fields in different network layers of a protocol stack occurs simultaneously, because if both fields are not sent together in the same data packet

the receiving party will not be able to reconstruct the identity associated with CBID 203 (in FIGs. 3 and 4) to confirm the identity of the sender. Furthermore, due to the underlying nature of an IPv6 network, any packet delivered over the network must include both an IPv6 address and a MAC address for packet routing, and hence both fields need to be sent simultaneously for a given data packet. Therefore, simultaneous generation and transmission of the multiple fields is a necessary part of the described invention (see FIGs. 3 and 4 of the instant application).

There is nothing within Huitema that discloses dividing cryptographic data into multiple pieces and simultaneously encapsulating the pieces of cryptographic data within multiple fields associated with different network layers of a protocol stack.

Accordingly, Applicant has amended independent claims 1, 11, 21, 31, 33, and 35 to clarify that the present invention simultaneously encapsulates different pieces of the cryptographic data in fields associated with different network layers of a protocol stack in a data packet, wherein the cryptographic data is larger than a single field, and wherein the cryptographic data is simultaneously encapsulated within multiple fields associated with different network layers of the protocol stack. These multiple fields need to be encapsulated simultaneously to facilitate routing the data packed to a receiving node, and then received simultaneously at the receiving node to reconstruct the identity associated with the cryptographic data. These amendments find support on page 7, paragraphs [0034]-[0035], on page 9, paragraphs [0039]-[0043], and in FIGs. 3 and 4. No new matter has been added.

Hence, Applicant respectfully submits that independent claims 1, 11, 21, 31, 33, and 35 as presently amended are in condition for allowance. Applicant also submits that claims 2-10, which depend upon claim 1, claims 12-20, which depend upon claim 11, claims 22-30, which depend upon claim 21, claim 32, which depends upon claim 31, claim 34, which depends upon claim 33, and

claim 36, which depends upon claim 35, are for the same reasons in condition for allowance and for reasons of the unique combinations recited in such claims.

### **CONCLUSION**

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

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